

ABSTRACT

A converter circuit is specified for at least one phase (R, Y, B), which converter circuit has a first switching group system (1) which is provided for each phase (R, Y, B) and has a first main switching group (4) which is formed by a power semiconductor switch (2) and by a capacitor (3) which is connected to the power semiconductor switch (2), and which first switching group system (1) has at least one intermediate switching group (7) which is formed by two series-connected power semiconductor switches (5) which can be driven and by a capacitor (6), with the or one intermediate switching group (7) being connected to the first main switching group (4). Furthermore, the first switching group system has a second main switching group (9) which is formed by a power semiconductor switch (8), with the or an intermediate switching group (7) being connected to the second main switching group (9). For simplicity and in order to improve the reliability of the converter circuit, the power semiconductor switch (2) in the first main switching group (4) and the power semiconductor switch (8) in the second main switching group (9) are each formed by only one passive electronic component (1) which cannot be driven and has a unidirectional current-flow direction. In order to increase the capability to store electrical energy when there are a plurality of phases (R, Y, B), the first switching group systems (1) in the phases (R, Y, B) are connected in parallel with one another.

Figure 10